

# HPE R32 19÷30 INVERTER

Air / water inverter heat pumps with axial fans for Hot / Cold and DHW production

**NEW**



## ENERGY RATING



## Technical and construction features

The HPE R32 19 ÷ 30 INVERTER heat pumps are high efficiency monobloc units designed for outdoor use for the residential and small tertiary sector that air-condition indoor environments and can produce domestic hot water via an external boiler offering a total heating and conditioning solution all year long.

In addition to the standard components, they offer as an option: the technical inertial accumulation under the unit already assembled in the company.

HPE R32 19 ÷ 30 INVERTERS offer a complete solution to every need required by the system, being able to operate in heating, cooling and domestic hot water production mode.

The HPE R32 19 ÷ 30 INVERTER have the following characteristics:

### INNOVATIVE REGULATION TECHNOLOGY

The inverter system precisely adjusts the compressor rotation frequency based on the energy demand, offering:

- Start-up in reduced times;
- Less frequent start / stop;
- Achievement of comfort conditions in less time than a non-inverter system;
- Lower levels of temperature fluctuation during operation.

### COMPRESSOR DC INVERTER

The Twin Rotary DC Inverter permanent magnet compressor it guarantees quality, reliability, high performance at partial loads and particularly silent operation, since it is installed on rubber anti-vibration mounts and is acoustically insulated by a special sound-absorbing material.

The full-DC frequency conversion system dramatically reduces power consumption by more than 30%.

### DC INVERTER FANS

The brushless DC motors of the fans help to meet the heating and cooling demands by guaranteeing low noise emissions and low energy consumption.

The fan and the protection grille are designed according to CFD technology, guaranteeing operation with high silence and efficiency.

### HYDROPHILIC BATTERY

The exchanger is composed of: internally grooved copper pipes that optimize the efficiency in heat exchange; aluminum fins The hydrophilic treatment facilitates the drainage of water and largely prevents the formation of ice.

### HYDRONIC MODULE

Integrated hydronic module with DC circulator, expansion tank and flow switch.

These hydraulic components are already installed inside the unit to ensure:

- High reliability;
- Reduction of space requirements;
- Faster and easier maintenance of the hydraulic circuit.



ECOLOGICAL GAS



RENEWABLE ENERGY



WIRED CONTROL INCLUDED



INVERTER CIRCULATOR



INVERTER COMPRESSOR



COOLING



HEATING



DHW

Model	Thermal Power kW	Cooling Power kW	Code	€
HPE R32 19 INVERTER	18,00	17,00	37920030	11.412,00
HPE R32 22 INVERTER	22,00	21,00	37920027	11.628,00
HPE R32 26 INVERTER	26,00	26,00	37920028	11.914,00
HPE R32 30 INVERTER	30,00	29,50	37920029	12.086,00

# HPE R32 19÷30 INVERTER

Air / water inverter heat pumps with axial fans for Hot / Cold and DHW production

## Accessories HPE R32 19÷30 INVERTER

Code

€



Wired control

**INCLUDED**



Antivibration floor base in vulcanized rubber (height from the ground 95 mm) with level and screws for Booster HR 3.0 and Booster HR 7.8 (pack of 2 pieces)

**75100018**

**94,00**



ATC Technical inertial tank for hot and chilled technical water

**mod. 140 liters**

**37900836**

**1.300,00**



AWP1 V storage tank for DHW Glass-ceramic boiler with increased exchanger for heat pump

**AWP1 V 200 l 37304007 1.258,00**

**AWP1 V 300 l 37304000 1.670,00**

**AWP1 V 400 l 37304001 2.100,00**

**AWP1 V 500 l 37304002 2.298,00**

**AWP1 V 600 l 37304003 2.640,00**

**AWP1 V 800 l 37304004 3.314,00**

**AWP1 V 1000 l 37304005 3.624,00**

**AWP1 V 1500 l 37304006 5.894,00**

Model	U.M.	200	300	400	500	600	800	1000	1500
Outer diameter*	mm	550	600	750	750	750	1050	1050	1260
Total height	mm	1320	1610	1410	1660	1910	1750	2110	2115
HP exchanger	m <sup>2</sup>	2,1	3,5	4,5	5,7	5,7	6,0	6,0	7,50
Recirculation connections		1/2"	1/2"	1/2"	1/2"	1/2"	1"	1"	1"
Entry HP		1"	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4
Exit HP		1"	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4
Empty weight	kg	78	110	133	159	167	215	251	383

\* All insulations are removable except for models from 200 to 600 liters



AWP2 V storage tank for DHW Glass-lined boiler with increased heat exchanger for heat pump and heat exchanger for solar thermal

**AWP2 V 300 l 37304298 1.972,00**

**AWP2 V 400 l 37304299 2.138,00**

**AWP2 V 500 l 37304300 2.588,00**

**AWP2 V 600 l 37304301 3.200,00**

**AWP2 V 800 l 37304302 3.644,00**

**AWP2 V 1000 l 37304303 4.236,00**

**AWP2 V 1500 l 37304304 6.614,00**

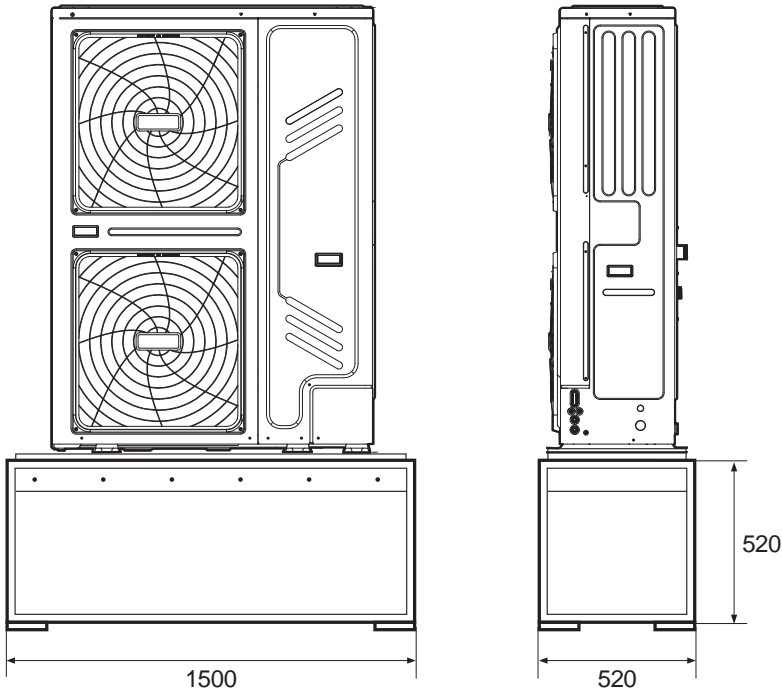
Model	U.M.	300	400	500	600	800	1000	1500
Outer diameter*	mm	500	650	650	650	790	790	1000
Total height	mm	1610	1410	1660	1910	1750	2110	2115
Scambiatore inf. Sol.	m <sup>2</sup>	1,0	1,2	1,5	2,0	2,0	3,3	3,6
Scambiatore sup.PdC	m <sup>2</sup>	2,4	3,0	4,2	5,0	5,2	6,0	7,5
Recirculation connections		1/2"	1/2"	1/2"	1/2"	1"	1"	1"
Entry HP		1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4
Exit HP		1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4
Empty weight	Kg	108	128	159	188	234	285	417

\* All insulations are removable except for models from 300 to 600 liters

# HPE R32 19÷30 INVERTER

Air / water inverter heat pumps with axial fans for Hot / Cold and DHW production

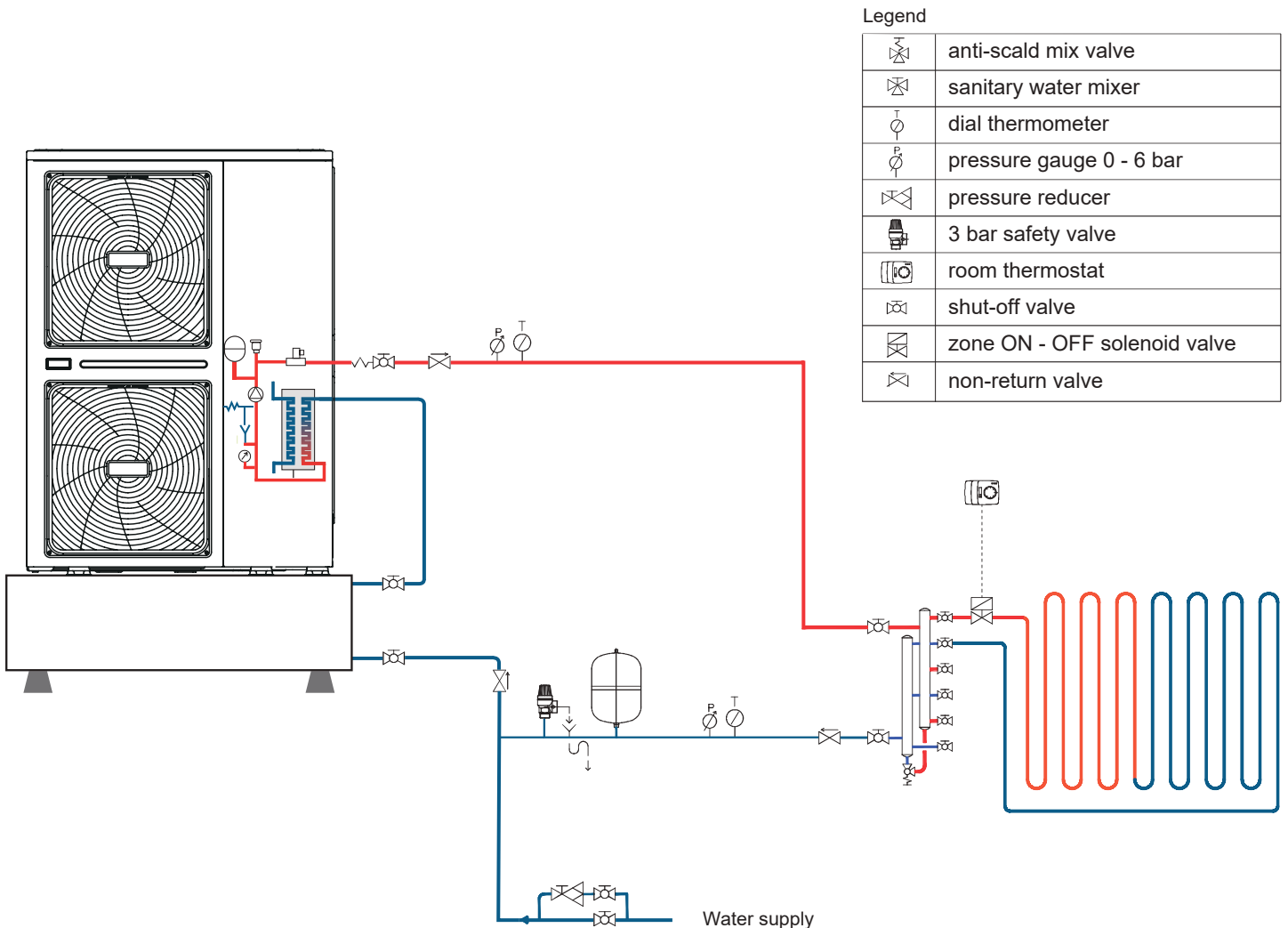
## ATC integrated 140 liter technical inertial storage tank



DESCRIPTION	U.M.	<b>140</b>
Useful capacity	l	140
Insulation thickness	mm	40
Coefficient of thermal conductivity	W/mK	0,03
Max working temp	°C	95
Max working pressure	bar	6
Max testing pressure	bar	3
Empty weight	kg	85
Operating weight	kg	225

Values expressed in mm

## Application example HPE R32 INVERTER

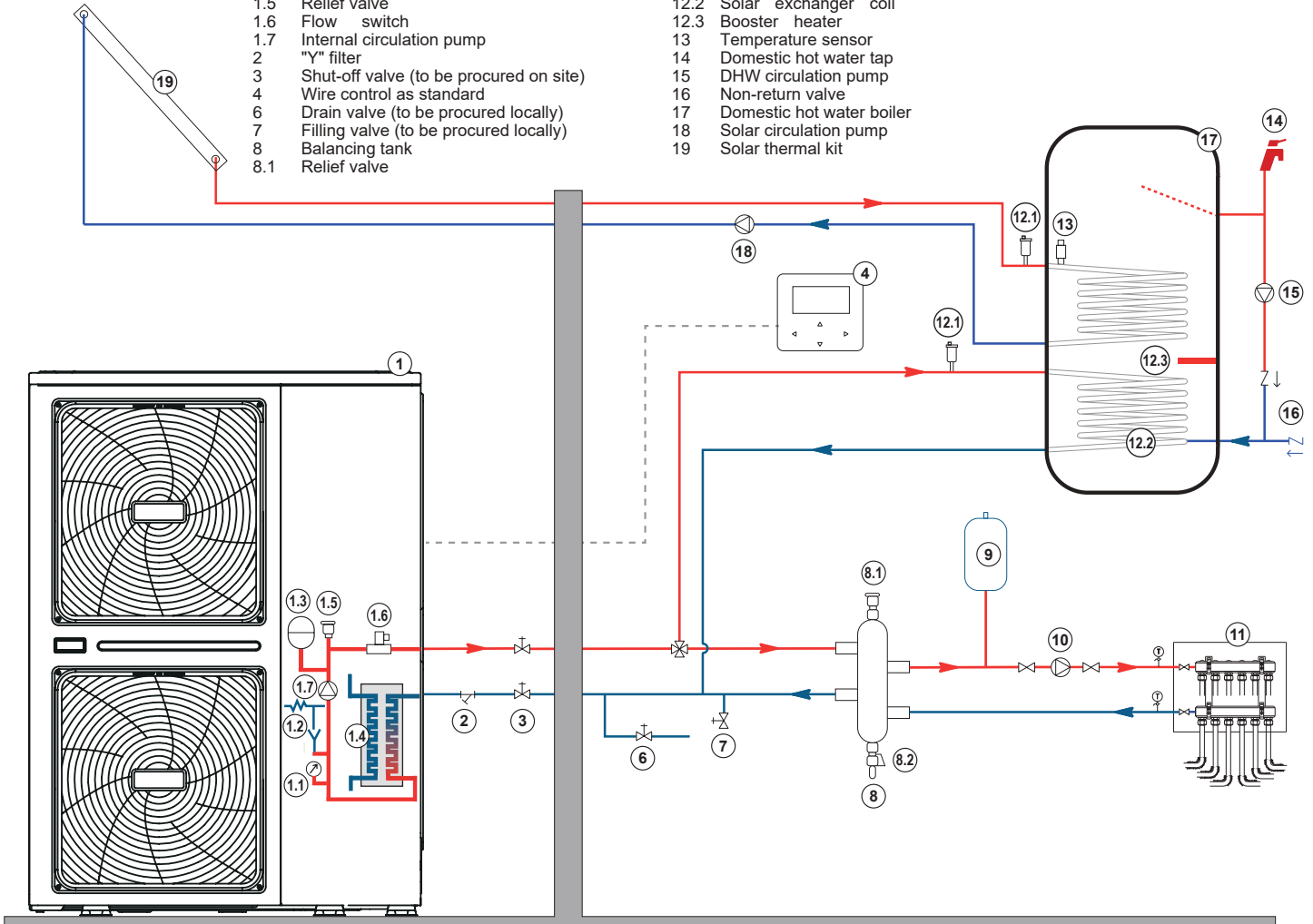


# HPE R32 19÷30 INVERTER

Air / water inverter heat pumps with axial fans for Hot / Cold and DHW production

## Application example HPE R32 INVERTER

- |     |   |      |  |
|-----|---|------|--|
| 1   | External unit HPE R32 INVERTER          | 8.2  | Exhaust valve                                      |
| 1.1 | Pressure gauge                          | 9    | Expansion vessel (to be procured locally)          |
| 1.2 | Safety valve                            | 10   | External circulation pump (to be procured locally) |
| 1.3 | Expansion vessel                        | 11   | Manifold / distributor (to be procured locally)    |
| 1.4 | Plate heat exchanger                    | 12.1 | Relief valve                                       |
| 1.5 | Relief valve                            | 12.2 | Solar exchanger coil                               |
| 1.6 | Flow switch                             | 12.3 | Booster heater                                     |
| 1.7 | Internal circulation pump               | 13   | Temperature sensor                                 |
| 2   | "Y" filter                              | 14   | Domestic hot water tap                             |
| 3   | Shut-off valve (to be procured on site) | 15   | DHW circulation pump                               |
| 4   | Wire control as standard                | 16   | Non-return valve                                   |
| 6   | Drain valve (to be procured locally)    | 17   | Domestic hot water boiler                          |
| 7   | Filling valve (to be procured locally)  | 18   | Solar circulation pump                             |
| 8   | Balancing tank                          | 19   | Solar thermal kit                                  |

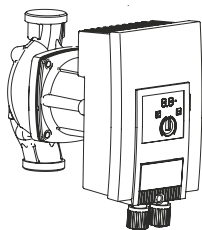


Unit operation and space heating: When the unit is connected to a room thermostat and this sends a heating request, the unit starts to operate to bring the system water to the temperature set on the wired control. When the room temperature exceeds the thermostat set point in heating mode, the unit stops. The circulation pumps also stop. In this case, the room thermostat is used as a switch.

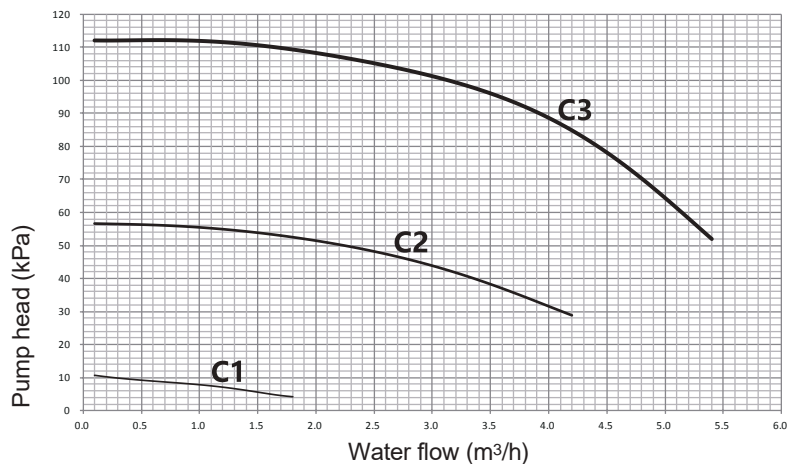
## Setting the speed of the HPE R32 INVERTER pump

The pump speed can be chosen by adjusting the red selector on the pump itself. The notch indicates the pump speed. The default setting is the highest speed (III).

If the water flow rate inside the system is too high, set the pump speed to "low" ("low") (I).



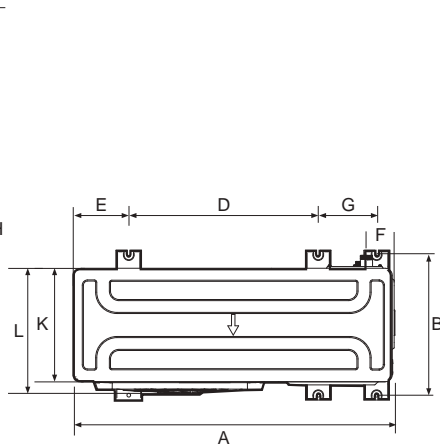
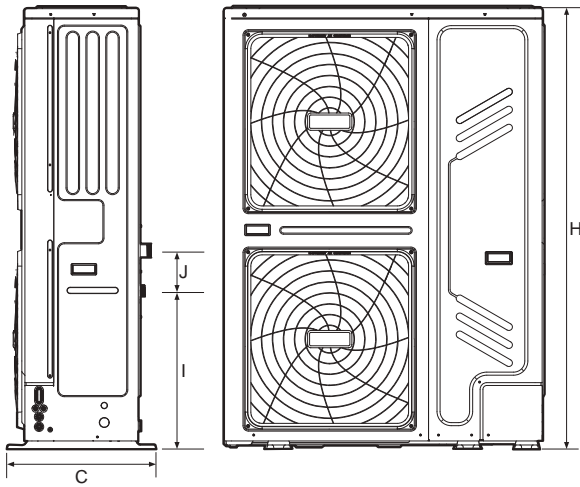
Pump head over flow rate



# HPE R32 22T÷30T INVERTER

Air / water inverter heat pumps with axial fans for Hot / Cold and DHW production

## Dimensions HPE R32 19 - 22 - 26 - 30 INVERTER



HPE R32	19	22	26	30
A	1129	1129	1129	1129
B	494	494	494	494
C	528	528	528	528
D	668	668	668	668
E	192	192	192	192
F	98	98	98	98
G	206	206	206	206
H	1558	1558	1558	1558
I	558	558	558	558
J	143	143	143	143
K	400	400	400	400
L	440	440	440	440

## Heat pumps technical data table HPE R32 19 - 22 - 26 - 30 INVERTER

Models		U.M.	HPE 19	HPE 22	HPE 26	HPE 30
<b>HEATING</b>						
Nominal power		kW	18,00	22,00	26,00	30,10
Electric absorption	A7/W35 (1)	kW	3,83	5,00	6,37	7,70
Coefficient of performance		COP	4,70	4,40	4,08	3,91
Nominal power		kW	18,00	22,00	26,00	30,00
Electric absorption	A7/W45 (2)	kW	5,143	6,471	8,387	10,345
Coefficient of performance		COP	3,50	3,40	3,10	2,90
Seasonal energy efficiency (ηs)	35/55	%	171,1 / 121,2	168,2 / 124,2	164,2 / 122,4	156,2 / 122,6
Energy efficiency class	35/55	-	A+++ / A++	A+++ / A++	A+++ / A+	A++ / A+
<b>COOLING</b>						
Nominal power		kW	18,50	23,00	27,00	31,00
Electric absorption	A35/W18 (3)	kW	3,895	5,00	6,279	7,75
Energy efficiency		ERR	4,75	4,60	4,30	4,00
Nominal power		kW	17,00	21,00	26,00	29,50
Electric absorption	A35/W7 (4)	kW	5,574	7,119	9,63	11,569
Energy efficiency		ERR	3,05	2,95	2,70	2,55

## OPERATING LIMITS

Outside air temperature	Heating	°C	-25÷35			
	Cooling	°C	-5÷46			
	HDW	°C	-25÷43			
Delivery water temperature	Heating	°C	25÷60			
	Cooling	°C	5÷25			
	HDW	°C	40÷60			
Refrigerant	TYPE (GVP)	-	R32 (675)			
	Quantity (Tons CO2)	kg/(t)	5 (3,375)			
	Control system		electronic expansion valve			
Type of compressor			Twin Rotary - DC inverter			
Internal circulator			Wilo Yonos Para RS 25/7.5 RKC			
Expansion vessel	Volume	l	8			
	Preload	bar	1,0			
Hydraulic connections - water inlet / outlet			1 - 1/4"			
Power supply			400V/3+N/50Hz			
Max current		A	16,80	19,60	21,60	22,80
Supply cable		mm <sup>2</sup>	5x6			
Wired control			Wired remote control			
Sound pressure at 1 m		dB(A)	57,6	59,8	61,5	63,5
Sound level		dB(A)	71	73	75	77
Net weight		kg	177			

(1) Heating: external air temperature 7 °C d.b. 6 °C b.u. ; in / out water temp. 30/35 °C - (2) Heating: external air temperature 7 °C d.b. 6 °C b.u. ; water temp./out 40/45 °C (3) Cooling: external air temperature 35 °C ; water inlet / outlet temperature 23/18 °C - (4) Cooling: external air temperature 35 °C ; water inlet / outlet temperature 12/7 °C The above data refer to the following standards: EN14511: 2013; EN14825: 2013; EN50564: 2011; EN12102: 2011; (EU) No: 811: 2013; (EU) No: 813: 2013; OJ 2014 / C 207/02: 2014;